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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 9

Application Number: 09/712,970
Filing Date: November 16, 2000
Appellant(s): NAGAI ET AL.

Melvin Kraus
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed October 15, 2003.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 1-14 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

A substantially correct copy of appealed claim 6 appears on pages 17 and 18 of the Appendix to the appellant's brief. The minor errors are as follows: In the twenty-fifth line of claim 6 (line 18 on page 18), "(lithe" should be "(1) the".

A substantially correct copy of appealed claim 7 appears on pages 18 and 19 of the Appendix to the appellant's brief. The minor errors are as follows: In the eleventh line of claim 7 (line 9 of page 19), the limitation beginning "an error-corrector" should be indented to indicate the beginning of a new clause.

A substantially correct copy of appealed claim 13 appears on 21, 22, and 23 of the Appendix to the appellant's brief. The minor errors are as follows: In the eleventh line of claim 13 (line 3 of page 22), the limitation beginning "an error-corrector" should be indented to indicate the beginning of a new clause.

A copy of claims 1-14, as finally rejected, is attached hereto as Appendix A.

(9) Prior Art of Record

6,209,092	Linnartz	03-2001
5,699,474	Suzuki et al.	12-1997

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-14 are rejected under 35 U.S.C. 103(a), as set forth in prior Office Action, Paper No. 6, and repeated below:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-5

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz (U.S. Patent 6,209,092) in view of Suzuki et al. (U.S. Patent 5,699,474). Linnartz

discloses a reproduction apparatus for reproducing video data and/or audio data from a medium dedicated to reproduction and/or a recordable medium having video data and/or audio data recorded thereon, the video data and/or audio data being generated by superimposing information concerning copying consent on a digitized video signal or audio signal (Abstract; see also column 2, line 26, through column 3, line 67), the reproduction apparatus comprising: reproducing means for reproducing the superimposed information concerning copying consent from the processed data (Abstract; column 5, lines 41-63); and output control means for performing output control of the reproduced data based on the reproduced information concerning copying consent (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45); wherein the output control means stops outputting the data if both (1) the data was reproduced from a medium dedicated to reproduction and (2) the reproduced information concerning copying consent indicates that copying once was permitted (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45). Linnartz does not disclose the other elements of claim 1; however, Suzuki teaches demodulating means for demodulating data modulated in accordance with a presumed modulation rule; temporal store means for storing the data demodulated by the demodulating means; and error-correcting means for error-correcting the demodulated data stored in a temporal store means, the error-corrected data being stored in a temporal store means (column 9, lines 43-50; refer also to Figure 5). Hence, it would have been obvious to one of ordinary skill in the art of data reproduction and copy protection at the time of applicant's invention to include demodulating means for the

obvious advantage of transforming the data into convenient (digital) form; error-correcting means for the obvious advantage of correcting data errors; and temporal store means for the obvious advantage of manipulating data for demodulation, error-correction, copying consent checking, etc.

Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz and Suzuki as applied to claim 1 above, and further in view of official notice. As per claim 2, neither Linnartz not Suzuki expressly discloses that said temporal store means is a RAM, but official notice is taken that the use of RAM to store data, especially to store data temporarily, is well known. Hence, it would have been obvious to one of ordinary skill in the art of data reproduction and copy protection at the time of applicant's invention to have the temporal store means be a RAM, for the obvious advantage of temporally storing the data in a convenient, widely available, and re-usable type of memory.

As per claim 3, neither Linnartz nor Suzuki discloses that the demodulating means, the error-correcting means, and the copying consent information reproduction means are connected to said RAM, but official notice is taken that it is well known to have data processing means connected to a RAM. Hence, it would have been obvious to one of ordinary skill in the art of data reproduction and copy protection at the time of applicant's invention to have the demodulating means, the error-correcting means, and the copying consent information reproduction means be connected to said RAM, for the obvious advantage of enabling the various data processing means read from and write to the RAM in order to carry out their functions with regard to the data.

As per claim 4, neither Linnartz nor Suzuki discloses that said RAM is constituted by a single RAM, but official notice is taken that it is well known for a RAM to be constituted by a single RAM (e.g., one disk). Hence, it would have been obvious to one of ordinary skill in the art of data reproduction and copy protection at the time of applicant's invention to have the RAM be constituted by a single RAM, for the obvious advantages of economizing on RAM's and enabling the data processing to be conducted in a simple and convenient manner.

As per claim 5, neither Linnartz nor Suzuki discloses that the copying consent information reproducing means, the demodulating means, the error-correcting means, and the RAM are integrated in a single semiconductor device, but official notice is taken that it is well known to integrate a multiplicity of data processors and memory into a single semiconductor device (as witness the terms "integrated circuit" and "computer on a chip"). Hence, it would have been obvious to one of ordinary skill in the art of data reproduction and copy protection at the time of applicant's invention to have the copying consent information reproducing means, the demodulating means, the error-correcting means, and the RAM integrated in a single semiconductor device, for the obvious advantages of simplifying chip manufacture, not needing to connect a number of chips to one another, increased processing speed (since signals would not have to be sent from one chip to another), and enhanced security, in that signals within a single chip cannot be as readily detected and falsified as signals between separate chips or other arrangements of circuit elements.

Claim 6

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz (U.S. Patent 6,209,092) in view of Suzuki et al. (U.S. Patent 5,699,474) and official notice. Linnartz discloses a reproduction apparatus for reproducing video data and/or audio data from a medium dedicated to reproduction and/or a recordable medium having video data and/or audio data recorded thereon, the video data and/or audio data being generated by superimposing information concerning copying consent on a digitized video signal or audio signal (Abstract; see also column 2, line 26, through column 3, line 67), said reproduction apparatus comprising: reproducing means for reproducing the superimposed information concerning copying consent from the processed data (Abstract; column 5, lines 41-63); and output control means for performing output control of the reproduced data based on said reproduced information concerning copying consent (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45); wherein the output control means stops outputting the data if both (1) the data was reproduced from a medium dedicated to reproduction and (2) the reproduced information concerning copying consent indicates that copying once was permitted (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45). Linnartz does not disclose the other elements of claim 1; however, Suzuki teaches demodulating means for demodulating data modulated in accordance with a presumed modulation rule; temporal store means for storing the data demodulated by the demodulating means; and error-correcting means for error-correcting the demodulated data stored in a temporal store means, the error-corrected data being stored in a temporal store means (column 9, lines 43-50; refer also to Figure

5). Hence, it would have been obvious to one of ordinary skill in the art of data reproduction and copy protection at the time of applicant's invention to include demodulating means for the obvious advantage of transforming the data into convenient (digital) form; error-correcting means for the obvious advantage of correcting data errors; and temporal store means for the obvious advantage of manipulating data for demodulation, error-correction, copying consent checking, etc.

Neither Linnartz nor Suzuki discloses that the demodulating means, the temporal store means, the error-correcting means, the copying consent information reproducing means, and the reproduction stopping means are integrated in a single semiconductor device. However, official notice is taken that it is well known to integrate a multiplicity of data processors and memory into a single semiconductor device (as witness the terms "integrated circuit" and "computer on a chip"). Hence, it would have been obvious to one of ordinary skill in the art of data reproduction and copy protection at the time of applicant's invention to have the demodulating means, the temporal store means, the error-correcting means, the copying consent information reproducing means and the reproduction stopping means integrated in a single semiconductor device, for the obvious advantages of simplifying chip manufacture, not needing to connect a number of chips to one another, increased processing speed (since signals would not have to be sent from one chip to another), and enhanced security, in that signals within a single chip cannot be as readily detected and falsified as signals between separate chips or other arrangements of circuit elements.

Claims 7-11

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz (U.S. Patent 6,209,092) in view of Suzuki et al. (U.S. Patent 5,699,474). Claim 7 is closely parallel to claim 1, and rejected on essentially the same grounds set forth above with regard to claim 1.

Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz and Suzuki as applied to claim 7 above, and further in view of official notice. Claims 8-11 are closely parallel to claims 2-5, respectively, and rejected on essentially the same grounds set forth above with regard to claims 2-5.

Claim 12

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz (U.S. Patent 6,209,092) in view of Suzuki et al. (U.S. Patent 5,699,474) and official notice. Claim 12 is closely parallel to claim 6, and rejected on essentially the same grounds set forth above with regard to claim 6.

Claim 13 and 14

Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz (U.S. Patent 6,209,092) in view of Suzuki et al. (U.S. Patent 5,699,474). Claims 13 and 14 are closely parallel to claim 1, and rejected on essentially the same grounds set forth above with regard to claim 1.

(11) Response to Argument

The essential inventive concept and many of the specific claimed limitations of the present application are taught by Linnartz. Other limitations are taught by Suzuki, or are well-known equipment and procedures of which official notice was taken, and not seasonably challenged by Appellants; furthermore, there is excellent motivation to combine the limitations which are not taught by Linnartz with those which are. Therefore, Appellants' claims would have been obvious to a person having ordinary skill in the art of copy protection at the time of the invention, and the rejections should be sustained.

Appellants' choice of terminology is not ideal. Appellants use the expression "recordable medium" to refer a medium such as a DVD-RAM disk, and "medium dedicated to reproduction" to refer to a medium such as a DVD-ROM (read only memory) disk. RAM disks are indeed recordable, in that new data can be recorded on them; ROM disks are not recordable, and are normally manufactured by pressing with impressions representing data permanently embedded into them. However, while the data on a ROM disk can be reproduced (played, or copied to a RAM disk), so can the data on a RAM disk, so ROM disks are not the only "media dedicated to reproduction." "Non-recordable medium" might be a better term. Secondly, ROM disks may have copy protection features to prevent them from being reproduced, as taught in the instant application (Summary of Invention, pages 2 and 3) and in such prior art as Linnartz (column 5, line 54, through column 6, line 54). Referring to pressed or ROM disks as "media dedicated to reproduction" is questionable when they incorporate features

specifically to prevent their content from being reproduced. It is suggested that the honorable members of the Board keep in mind what Appellants' terms refer to.

Appellants commence their argument by citing In re Fine, reminding Examiner and the Board that it is insufficient for each claim element to be found somewhere in the prior art; it is necessary for there to be some teaching, suggestion, or motivation to combine features found either in the prior art references themselves or in the knowledge generally available to one of ordinary skill in the art. Examiner is aware of this requirement, and supplied statements of motivation in making his rejections, an issue which will be discussed in detail below.

Appellants next argue against Examiner's use of official notice, citing In re Lee to support their case. Examiner replies that neither the passage from In re Lee cited by Appellants, nor anything else in In re Lee, bars the use of official notice in making rejections. Rather, the In re Lee precedent reiterates that the question of motivation must be addressed, and that the use of a particular feature in a claimed invention cannot be dismissed as possible grounds for patentability merely because the feature in itself is known. Appellants also quote, with underlining, the statement that it is improper simply to "use that which the inventor taught against its teacher." Examiner did not rely on using Appellants' disclosure or claims to make the rejections under 35 U.S.C. 103(a), and in particular, did not learn about RAM (random access memory) or integrated circuits, from the instant application.

Appellants then write, "Also, it is to be noted that by filing the Notice of Appeal, the taking of 'official notice' is considered to be challenged." Examiner replies that this

is not a seasonable challenge, as official notice was taken in the first Office action (paper #3) in the case, and not then traversed by Appellants in their amendment and response (paper #4); based on such a lack of traversal, the "common knowledge" or "well-known in the art" statement may be taken to be admitted prior art. Furthermore, an adequate traversal must specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art. (See 37 CFR 1.111(b); and MPEP 2144.03 C.) Appellants do not state any reason why RAM or the use of integrated circuits ("computers on a chip") should not be considered common knowledge or well-known in the art. The remaining question is whether there was sufficient motivation to combine the well-known features of which official notice was taken with Linnartz, the primary art of record, and this will be addressed below.

Appellants next submit that Examiner has mischaracterized the teachings of Linnartz, and dispute Examiner's contention that Linnartz discloses an output control means which stops outputting the data if both (1) the data was reproduced from a medium dedicated to reproduction and (2) the reproduced information concerning copying consent indicates that copying once was permitted. (Incidentally, in quoting from Examiner's final rejection, Appellants make a typographical error, attributing a citation to "Col. 6, lines 22-24" of Linnartz, where Examiner actually wrote, "column 6, lines 22-45.") Appellants argue (on pages 8 and 9 of the Appeal Brief) that Linnartz only uses a water mark W, a control ticket T, and a medium mark P. Appellants' prose is confusing at this point, but the contention appears to be that even though copying

consent may have indicated that copying consent once was permitted, when copying consent for additional copy is present, copying is permitted (Appellants' emphasis). Examiner agrees that, according to Linnartz, when copying consent is present, copying is permitted. But, again according to Linnartz, when copying consent is not present, copying is not permitted. Specifically, Linnartz discloses a cryptographic watermark, data from which is passed through a cryptographic one-way function, so that only one generation of copies (or some other fixed number of generations of copies) can be made. Thus, copying is not permitted, and the outputting of data is stopped, if the reproduced information concerning copying consent indicates that copying once was permitted, but is no longer permitted, as set forth by Linnartz (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45).

Next, Appellants write that assuming *arguendo* that Linnartz may be considered to provide consideration (2) – which, as Examiner has set forth in the preceding paragraph, Linnartz quite clearly does – Linnartz does not disclose or teach stopping the outputting of data based upon condition (1), that the error-corrected data was reproduced from a medium dedicated to reproduction. Examiner replies that Linnartz does not teach that the data is error-corrected data, Suzuki being relied upon for that limitation, but Linnartz does teach stopping the outputting of data based upon the data being from a medium dedicated to reproduction. "Medium dedicated to reproduction," let it be remembered, is Appellants' term for such media as DVD-ROM's with read-only memory, which cannot be written to. Linnartz terms such a medium a professional medium, manufactured by pressing, as distinct from a recordable disc (see column 1,

lines 63-65, background information). That being established, Linnartz discloses a professional disc containing a special permission mark, which is not copied when audio data from the disk is copied (column 4, line 58, through column 5, line 2). An application of this feature, as Linnartz states, is that audio copies made from the professional disk lack the permission mark, and therefore cannot be further copied; thus, data reproduced from a professional disk/"medium dedicated to reproduction" and now present on a recordable disk cannot be further copied, and reproduction is stopped.

Hence, Linnartz meets the claim language of both (1) and (2); outputting of data is stopped if both (1) the data was reproduced from a medium dedicated to reproduction and (2) the reproduced information concerning copying consent indicates that copying once was permitted. However, while Appellants' claim language does not make this unambiguous, another interpretation is possible: one can read the limitation "the data was reproduced from a medium dedicated to reproduction" as indicating not that the data was at some point in the past reproduced from a medium dedicated to reproduction, and is now on a recordable medium, but that a professional disk/"medium dedicated to reproduction" is in the reproduction apparatus *now*, and is being tested to determine whether outputting of the data is legitimate and proper. Be it noted that this interpretation is not only not required by Appellants' claim language, but not expressly set forth in Appellants' arguments. Even on this interpretation, however, Linnartz discloses stopping outputting of data if both (1) the data was reproduced from a medium dedicated to reproduction and (2) the reproduced information concerning copying consent indicates that copying once was permitted, since if the reproduced information

concerning copying consent indicates that copying once was permitted (and no longer is), whether or not the data was reproduced from a medium dedicated to reproduction. Linnartz does not disclose that (1) is an absolute requirement, i.e., that outputting of the data will *not* be stopped if the reproduced information concerning copying consent indicates that copying once was permitted, but the data was *not* reproduced from a medium dedicated to reproduction. However, this is nowhere claimed as a limitation, and Examiner has no duty to read "if" as "only if," to read in other claim language which Appellants did not use, such as "responsive to determining that the data was reproduced from the medium dedicated to reproduction," or, in the absence of file wrapper estoppel, to give the claims a narrower interpretation than the broadest reasonable interpretation.

After presenting their arguments concerning the limitations which Examiner maintains that Linnartz discloses, Appellants turn to the limitations which Linnartz admittedly does not disclose (page 10 of the Appeal Brief). While Examiner denies mischaracterizing the disclosure of Linnartz, Examiner does recognize that Linnartz does not disclose all elements of the independent claims, and after stating so in the rejection of claim 1, Examiner wrote:

> Suzuki teaches demodulating means for demodulating data modulated in accordance with a presumed modulation rule; temporal store means for storing the data demodulated by the demodulating means; and error-correcting means for error-correcting the demodulated data stored in a temporal store means, the error-corrected data being stored in a temporal store means (column 9, lines 43-50; refer also to Figure 5). Hence, it would have been obvious to one of ordinary skill in the art of data reproduction and copy protection at the time of applicant's

invention to include demodulating means for the obvious advantage of transforming the data into convenient (digital) form; error-correcting means for the obvious advantage of correcting data errors; and temporal store means for the obvious advantage of manipulating data for demodulation, error-correction, copying consent checking, etc.

Appellants argue that the patent issued to Suzuki et al. is not directed to the problem of illegal or pirated copying, which is true, but does not make Suzuki irrelevant to the case at hand. Examiner, in rejecting claim 1, identified the relevant art as "the art of data reproduction and copy protection," and with reason; while a patent or paper concerned with data reproduction need not necessarily involve copy protection, as Suzuki's does not, the converse is not true: one skilled in the art of copy protection must be knowledgeable in the field of data reproduction, since copy protection involves deciding whether data are to be reproduced, and one skilled in copy protection must therefore concern himself with how data sets that can lawfully be reproduced are to be distinguished from data sets that cannot, and how present or proposed methods of copy protection operate or would operate in conjunction with means for data reproduction, how data might be reproduced unlawfully, despite safeguards, and so forth.

It has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Suzuki, being concerned with data reproduction, is in the field of Appellants' endeavor, since copy protection and data reproduction are not really

separable fields; it is scarcely necessary to point out that in addition, Suzuki is reasonably pertinent to the particular problems with which Appellants were concerned.

Appellants further note that Suzuki provides no disclosure or teaching regarding the stopping of outputting of error-corrected data based upon conditions (1) and (2). Examiner replies that Suzuki was not relied upon for doing this; Linnartz discloses stopping the outputting of data, as set forth above.

Appellants' allegation of improper hindsight reconstruction is noted; Appellants make the argument (page 12 of the Appeal Brief), "Linnartz apparently uses digital data and since Suzuki et al. has a publication date of 1995, several years before the 1997 priority date of Linnartz, Linnartz is assumed to have knowledge of the techniques as disclosed therein and did not consider the same necessary for the system as disclosed in Linnartz."

In response to Appellants' argument that Examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Furthermore, while it is possible that Linnartz did not consider the features, or some of the features, for which Examiner has relied on Suzuki necessary for the system disclosed in Linnartz's patent, it is also possible that Linnartz regarded those features,

or some of them, as too obvious and well-known to require explicit disclosure. Linnartz's patent, it may be observed, contains no express mention of electricity, but it would be unreasonable to conclude that Linnartz did not regard electricity as necessary, or at least very useful, in his apparatus, and doubly unreasonable to allow a patent application whose claims were distinguished over Linnartz only by reciting the use of electricity.

Next, Appellants argue that Examiner's rejections based on official notice were improper. Appellants have not recited the use of electricity in their claims, but they do argue for the patentability of some of their claims based on elements scarcely less familiar than electricity to those even moderately skilled in modern electronics. Claim 2 recites that the temporal store means is a RAM; claim 3 recites that the demodulating means, the error-correcting means, and the copying consent information reproducing means are connected to the RAM; claim 4 recites that the RAM is constituted by a single RAM; and claim 5 recites that the copying consent information reproducing means, the demodulating means, the error-correcting means, and the RAM are integrated in a single semiconductor device. Claim 6 is essentially the same as claim 1 with the additional limitation of claim 5, and claims 7-12 are parallel to claims 1-6, respectively. Appellants argue that Examiner's position has been rejected by the court in In re Lee (page 13 of the Appeal Brief). Examiner replies, as set forth above, on the thirteenth page of the present Examiner's Answer, that the In re Lee precedent does not abolish reliance on official notice, but only emphasizes that the question of motivation must be addressed.

As Appellants did not seasonably traverse Examiner's takings of official notice, and have not claimed to be the inventors of RAM or of integrated circuits as such, the remaining issue is not whether the features of which Examiner took official notice were known prior to Appellants' invention, but only whether it would have been obvious to one of ordinary skill in the art to combine these features with the disclosure of Linnartz. Examiner holds that it would have been obvious, and provided statements of motivation; for example, as per claim 2, it would have been obvious for the temporal store to be a RAM, for the obvious advantage of temporally storing the data in a convenient, widely available, and re-usable type of memory.

Claim 3 has been treated in a manner consistent with the rejections of claims 1 and 2, since the various means recited could hardly have performed their functions unless connected to the temporal store means, directly or indirectly. Thus, Examiner concluded that it would have been obvious to one of ordinary skill in the art of data reproduction and copy protection at the time of applicant's invention to have the demodulating means, the error-correcting means, and the copying consent information reproduction means be connected to said RAM, for the obvious advantage of enabling the various data processing means to read from and write to the RAM in order to carry out their functions with regard to the data.

Similarly, given the use of RAM, which an appropriate technical dictionary or similar source could easily confirm to be well known, Examiner held it to have been obvious to one of ordinary skill in the art of data reproduction and copy protection at the time of applicant's invention to have the RAM be constituted by a single RAM, for the

obvious advantages of economizing on RAM's and enabling the data processing to be conducted in a simple and convenient manner (claim 4). Appellants are not the inventors of having RAM be a single RAM, so it is presumed that their case rests on their allegation of impermissible hindsight reasoning. Examiner replies that his rejection of claim 5 takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from Appellants' disclosure, and is therefore proper. Examiner does not, incidentally, dispute that patents can sometimes be granted for simplifications, removing unneeded or redundant features of a previous invention, but that is not the situation here, as Appellants no more claim to be the inventors of using a single RAM than to be the inventors of RAM.

In rejecting claim 5, Examiner wrote, "[I]t would have been obvious to one of ordinary skill in the art of data reproduction and copy protection at the time of applicant's invention to have the copying consent information reproducing means, the demodulating means, the error-correcting means, and the RAM integrated in a single semiconductor device, for the obvious advantages of simplifying chip manufacture, not needing to connect a number of chips to one another, increased processing speed (since signals would not have to be sent from one chip to another), and enhanced security, in that signals within a single chip cannot be as readily detected and falsified as signals between separate chips or other arrangements of circuit elements." Here are four different advantages, all of which are based on what was known to persons of

ordinary skill in the art, and none of which Appellants have actually traversed, to motivate integrating multiple features in a single semiconductor device.

On page 14, Appellants discuss the differences between their various claims. Examiner agrees that independent claim 6 does not stand or fall with independent claim 1, and that the dependent claims do not necessarily fall with the independent claims, but notes that Appellants do not present arguments at any length for the patentability of the apparatus claims using means plus function format instead of structure format, or the method claims whose method steps closely parallel the apparatus elements of the apparatus claims.

In their conclusion (pages 14-15 of the Appeal Brief), Appellants submit that Linnartz taken alone or in combination with Suzuki et al. fails to disclose or teach the stopping of error-corrected data if two conditions are detected, i.e., if both (1) the error-corrected data was reproduced from the medium dedicated to reproduction and (2) the reproduced information concerning copying consent [indicates that copying once was permitted]; but this is stating Appellants' invention in rather different terms from those used in any of the claims. The claims nowhere recite *detecting* that both (1) the error-corrected data was reproduced from the medium dedicated to reproduction and (2) the reproduced information concerning copying consent stored in the temporal store means indicates that copying once was permitted. The claims only recite that these conditions are met, and condition (1), especially, can be met without being detected. Examiner respectfully requests the Board to judge the claims based on what they recite, and not on the basis of any descriptions of the claims that differ from the actual limitations.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Nicholas D. Rosen
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PRIMARY EXAMINER

Nicholas D. Rosen
November 28, 2003

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Appendix A to Examiner's Answer, case 09/712,970

Copy of claims as finally rejected:

--1. (Amended) A reproduction apparatus for reproducing video data and/or audio data from a medium dedicated to reproduction and/or a recordable medium having video data and/or audio data recorded thereon, the video data and/or audio data being generated by superimposing information concerning copying consent on a digitized video signal or audio signal which has undergone addition of an error correction code for error correction and then been modulated in accordance with a modulation rule adapted for the recording medium, the reproduction apparatus comprising:

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demodulating means for demodulating data modulated in accordance with the modulation rule;

temporal store means for storing the data demodulated by the demodulating means;

error-correcting means for error-correcting the demodulated data stored in the temporal store means based on the error correction code, the error-corrected data being stored in the temporal store means;

reproducing means for reproducing the superimposed information concerning copying consent from the error-corrected data processed by the error-correcting means and stored in the temporal store means; and

output control means for performing output control of the error-corrected data based on the reproduced information concerning copying consent stored in the temporal store means;

wherein the output control means stops outputting the error-corrected data if both (1) the error-corrected data was reproduced from the medium dedicated to reproduction and (2) the reproduced information concerning copying consent stored in the temporal store means indicates that copying once was permitted.

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2. (Amended) A reproduction apparatus for reproducing video data and/or audio data according to claim 1, wherein the temporal store means is a RAM.

3. (Amended) A reproduction apparatus for reproducing video data and/or audio data according to claim 2, wherein the demodulating means, the error-correcting means, and the copying consent information reproducing means are connected to the RAM.

4. (Amended) A reproduction apparatus for reproducing video data and/or audio data according to claim 3, wherein the RAM is constituted by a single RAM.

5. (Amended) A reproduction apparatus for reproducing video data and/or audio data according to claim 2, wherein the copying consent information reproducing means, the demodulating means, the error-correcting means, and the RAM are integrated in a single semiconductor device.

6. (Amended) A reproduction apparatus for reproducing video data and/or audio data from a medium dedicated to reproduction and/or a recordable medium having video data and/or audio data recorded thereon, the video data and/or audio data being generated by superimposing information concerning copying consent on a digitized video signal or audio signal which has undergone addition of an error correction code for error correction and then been modulated in accordance with a modulation rule adapted for the recording medium, the reproduction apparatus comprising:

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demodulating means for demodulating data modulated in accordance with the modulation rule;

temporal store means for storing the data demodulated by the demodulating means;

error-correcting means for error-correcting the demodulated data stored in the temporal store means based on the error correction code, the error-corrected data being stored in the temporal store means;

reproducing means for reproducing the superimposed information concerning copying consent from the error-corrected data processed by the error-correcting means and stored in the temporal store means; and

means for stopping reproduction of the error-corrected data in accordance with the information concerning copying consent from the copying consent information reproducing means;

wherein the demodulating means, the temporal store means, the error-correcting means, the copying consent information reproducing means, and the reproduction stopping means are integrated in a single semiconductor device; and

wherein the reproduction stopping means stops reproduction of the error-corrected data if both (1) the error-corrected data was reproduced from the medium dedicated to reproduction and (2) the information concerning copying consent from the copying consent information reproducing means indicates that copying once was permitted.

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7. (Amended) A reproduction apparatus for reproducing video data and/or audio data from a medium dedicated to reproduction and/or a recordable medium having video data and/or audio data recorded thereon, the video data and/or audio data being generated by superimposing information concerning copying consent on a digitized video signal or audio signal which has undergone addition of an error correction code for error correction and then been modulated in accordance with a modulation rule adapted for the recording medium, the reproduction apparatus comprising:

a demodulator which demodulates data modulated in accordance with the modulation rule;

a temporal store which stores the data demodulated by the demodulator;

an error-corrector which error-corrects the demodulated data stored in the temporal store based on the error correction code, the error-corrected data being stored in the temporal store;

a reproducer which reproduces the superimposed information concerning copying consent from the error-corrected data processed by the error-corrector and stored in the temporal store; and

an output controller which performs output control of the error-corrected data based on the reproduced information concerning copying consent stored in the temporal store;

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wherein the output controller stops outputting the error-corrected data if both (1) the error-corrected data was reproduced from the medium dedicated to reproduction and (2) the reproduced information concerning copying consent stored in the temporal store indicates that copying once was permitted.

8. (Amended) A reproduction apparatus for reproducing video data and/or audio data according to claim 7, wherein the temporal store is a RAM.

9. (Amended) A reproduction apparatus for reproducing video data and/or audio data according to claim 8, wherein the demodulator, the error-corrector, and the copying consent information reproducer are connected to the RAM.

10. (Amended) A reproduction apparatus for reproducing video data and/or audio data according to claim 9, wherein the RAM is constituted by a single RAM.

11. (Amended) A reproduction apparatus for reproducing video data and/or audio data according to claim 8, wherein the copying consent information reproducer, the demodulator, the error-corrector, and the RAM are integrated in a single semiconductor device.

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12. (Amended) A reproduction apparatus for reproducing video data and/or audio data from a medium dedicated to reproduction and/or a recordable medium having video data and/or audio data recorded thereon, the video data and/or audio data being generated by superimposing information concerning copying consent on a digitized video signal or audio signal which has undergone addition of an error correction code for error correction and then been modulated in accordance with a modulation rule adapted for the recording medium, the reproduction apparatus comprising:

a demodulator which demodulates data modulated in accordance with the modulation rule;

a temporal store which stores the data demodulated by the demodulator;

an error-corrector which error-corrects the demodulated data stored in the temporal store based on the error correction code, the error-corrected data being stored in the temporal store;

a reproducer which reproduces the superimposed information concerning copying consent from the error-corrected data processed by the error-corrector and stored in the temporal store; and

a reproduction stopper which stops reproduction of the error-corrected data in accordance with the information concerning copying consent from the copying consent information reproducer;

wherein the demodulator, the temporal store, the error-corrector, the copying consent information reproducer, and the reproduction stopper are integrated in a single semiconductor device; and

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wherein the reproduction stopper stops reproduction of the error-corrected data if both (1) the error-corrected data was reproduced from the medium dedicated to reproduction and (2) the information concerning copying consent from the copying consent information reproducer indicates that copying once was permitted.

13. (Amended) A method for reproducing from a medium dedicated to reproduction and/or a recordable medium having video data and/or audio data recorded thereon, the video data and/or audio data being generated by superimposing information concerning copying consent on a digitized video signal or audio signal which has undergone addition of an error correction code

for error correction and then been modulated in accordance with a modulation rule adapted for the recording medium, in a reproduction apparatus including

a demodulator which demodulates data in accordance with the modulation rule,

a temporal store which stores the data demodulated by the demodulator,

an error-corrector which error-corrects the demodulated data stored in the temporal store based on the error correction code, the error-corrected data being stored in the temporal store,

a reproducer which reproduces the superimposed information concerning copying consent from the error-corrected data processed by the error-corrector and stored in the temporal store, and

an output controller which performs output control of the error-corrected data,

the method comprising the steps of:

demodulating modulated data by the demodulator;

temporarily storing the demodulated data in the temporal store;

error-correcting the demodulated data stored in the temporal store by the error-corrector, the error-corrected data being stored in the temporal store;

reproducing the superimposed information concerning copying consent from the error-corrected data stored in the temporal store by the copying consent information reproducer; and

performing output control of the error-corrected data by the output controller in accordance with the information concerning copying consent reproduced by the copying consent information reproducer;

wherein the step of performing output control of the error-corrected data includes the step of stopping outputting the error-corrected data by the output controller if both (1) the error-corrected data was reproduced from the medium dedicated to reproduction and (2) the reproduced information concerning copying consent stored in the temporal store indicates that copying once was permitted.

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demodulating means for demodulating data in accordance with the modulation rule,

temporal store means for storing the data demodulated by the demodulating means,

error-correcting means for error-correcting the demodulated data stored in the temporal store means based on the error correction code, the error-corrected data being stored in the temporal store means,

reproducing means for reproducing the superimposed information concerning copying consent from the error-corrected data processed by the error-correcting means and stored in the temporal store means, and

output control means for performing output control of the error-corrected data,

the method comprising the steps of:

c4 demodulating modulated data by the demodulating means;

temporarily storing the demodulated data in the temporal store means;

error-correcting the demodulated data stored in the temporal store means by the error-correcting means, the error-corrected data being stored in the temporal store means;

reproducing the superimposed information concerning copying consent from the error-corrected data stored in the temporal store means by the copying consent information reproducing means; and

performing output control of the error-corrected data by the output control means in accordance with the information concerning copying consent reproduced by the copying consent information reproducing means;

wherein the step of performing output control of the error-corrected data includes the step of stopping outputting the error-corrected data by the

output control means if both (1) the error-corrected data was reproduced from the medium dedicated to reproduction and (2) the reproduced information concerning copying consent stored in the temporal store means indicates that copying once was permitted.--

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